



Getting Started

The following topics provide an overview of the Wireless LAN Solution Engine (WLSE), information about WLSE displays, and assistance with getting started:

- [Overview of the Wireless LAN Solution Engine, page 1-1](#)
- [WLSE Integration with Network Management Systems, page 1-2](#)
- [Understanding the Web Interface, page 1-3](#)
- [Logging In and Out, page 1-11](#)
- [Customizing the Web Interface, page 1-12](#)
- [Next Steps, page 1-13](#)



Note

Before using the procedures in this guide, you must install and configure the WLSE 1130, as described in the *Installation and Configuration Guide for the CiscoWorks Wireless LAN Solution Engine, Release 2.5*

Overview of the Wireless LAN Solution Engine

The WLSE is a hardware and software solution for managing Cisco wireless devices. The WLSE has the following major features:

- Configuration and Firmware

The configuration feature allows you to apply a set of configuration changes to access points and bridges and to archive configurations. Using the firmware feature, you can upgrade the firmware on access points and bridges.

- Reporting
Allows you to display reports for tracking device, client and security information. Reports can be emailed, printed, and exported.
- Fault and Policy Monitoring
Provides device monitoring for fault and performance conditions, monitoring of authentication server responses, and monitoring of policy misconfigurations.
- Radio Management
Helps you manage your WLAN radio environment. All the device information shown under this tab is polled from the managed devices in your network. Radio Manager features simplify the deployment, expansion, and day-to-day management of the WLAN.

The WLSE works by gathering fault, performance, and configuration information about Cisco devices that it discovers in your network. The devices must be properly configured for discovery. After devices are discovered, you decide which devices to manage with the WLSE.

WLSE Integration with Network Management Systems

You can integrate the WLSE with other network management systems as follows:

- Add a link to a WLSE from a CiscoWorks server, using CiscoWorks Management Connection—See the document *Integrating CiscoWorks Wireless LAN Solution Engine with a CiscoWorks Server* on Cisco.com.
- Launch a CiscoWorks server's desktop from the WLSE—See [Creating Links, page 8-48](#).
- Use the WLSE's fault notification interface to forward WLSE faults as SNMP traps—See [Notification Settings, page 2-51](#).



Note

WLSE 2.5 supports only SNMP v2c traps. SNMP v1 traps are not supported. Only network management systems that support v2c traps can integrate with the WLSE.

Understanding the Web Interface

When you log into the WLSE through the World Wide Web, the set of features (tabs and subtabs) displayed in the UI depends on the roles assigned to your user login. A user with system administrator privileges can access the features in all of the tabs and subtabs, while other users may see only a subset of features. For more information about user roles, see [Managing Roles, page 8-40](#).

This section describes the following aspects of the UI:

- The supported browsers and versions and browser configuration—See [Supported Browsers, page 1-3](#).
- The dashboard, including the tabs, subtabs, and buttons in the upper right corner—See [The WLSE Dashboard, page 1-5](#).
- How device names and IP addresses are displayed in the WLSE GUI—See [Device Name and IP Address Display, page 1-8](#).
- How the WLSE displays time—See [Time Display, page 1-8](#).
- How to use the device selector and Search—See [Using the Device Selector and Search, page 1-9](#).
- How to sort table data—See [Sorting Table Data, page 1-11](#).

Supported Browsers

The supported browsers and versions are listed in [Table 1-1](#).



Note

Using earlier, unsupported versions of Internet Explorer compromises the security of the WLSE.

Table 1-1 Supported Browsers

Client Operating System	Supported Browsers
Windows 2000, Windows NT, and Windows XP	Microsoft Internet Explorer 6.0 with Service Pack 1 Netscape Navigator 7.02
Japanese Windows 2000, Windows NT, and Windows XP	Japanese Microsoft Internet Explorer 6.0 with Service Pack 1 Japanese Netscape Navigator 7.02
Solaris 8 and 9	Netscape Navigator 7.01

For the WLSE's Web interface to function correctly, all browsers require configuration. To configure a browser:

-
- Step 1** Enable JavaScript.
- Step 2** Configure the browser to accept all cookies.
- Step 3** Change the default font to sans serif for improved readability.
- Step 4** Windows XP does not come with the Java Plugin installed on Internet Explorer 6.0. This causes problems when updating the software on a WLSE. If you plan to use a Windows XP client or server to update WLSE software, see the following references:
- Using a Windows XP client and Internet Explorer 6.0—See [Installing the Software Update, page 8-12](#).
 - Using a Windows XP server and Internet Explorer 6.0—See [Creating a Repository on a Windows Server, page 8-10](#).
-

For more detailed information on configuring browsers, see the *Installation and Configuration Guide for the CiscoWorks Wireless LAN Solution Engine, Release 2.5* or the browser's documentation.

The WLSE Dashboard

The WLSE dashboard consists of:

- Tabs and subtabs that provide access to WLSE functions (see [Tabs and Subtabs, page 1-5](#)).
- Buttons in the upper right corner that provide general functions (see [Buttons, page 1-7](#)).

Tabs and Subtabs

The dashboard contains the following tabs and subtabs:

Table 1-2 *Tabs and Subtabs*

Main Tab	Subtabs	For information, see...
Faults	Display Faults—display device faults. Manage Fault Settings—use profiles to set thresholds and policies. Manage Network-Wide Profiles—assign network wide settings. Notification Settings—send fault information (traps, syslog messages, and emails).	Fault Monitoring, page 2-1.
Devices	Discover—enable discovery options and run discoveries, reset polling intervals, enter device credentials, put devices under management, run inventories, view task history for inventory and discovery, import and export devices, and enter AAA servers (LEAP, RADIUS, EAP-MD5, and PEAP) to be monitored. Group Management—manage device grouping by setting up static and dynamic groups.	Managing Devices, page 3-1
Configure	Templates—create configuration templates. Archives—view and manage the archived configurations. Jobs—apply configuration templates to access points and retrieve configurations for archiving. Auto update—automate initial configuration of access points.	Configuring Devices, page 4-1.

Table 1-2 *Tabs and Subtabs (continued)*

Main Tab	Subtabs	For information, see...
Firmware	<p>Images—import firmware for access points and bridges from the desktop or from Cisco.com to the WLSE.</p> <p>Jobs—upload firmware to access points.</p>	Updating Device Firmware, page 5-1.
Reports	<p>Device Center—quickly view reports for a particular device.</p> <p>Radio Manager—view reports about radio management information on the access points.</p> <p>Wireless Clients—view reports about client associations with access points.</p> <p>Current—view, export, and email reports about each type of monitored device.</p> <p>Trends—view, export, and email reports about current trends for monitored devices.</p> <p>Scheduled email jobs—manage email jobs.</p>	Using Reports, page 6-1.
Radio Management	<p>Radio Monitoring—monitor the WLAN and collects channel measurements used for radio configuration, rogue AP discovery, and interference detection</p> <p>AP Radio Scan—collect rogue location estimations, radio parameter generation (RPG) data, and coverage display data</p> <p>Client Walkabout—collect radio measurements and report them to the serving AP as you walk a client station throughout the coverage area</p> <p>RM Assisted Configuration—configure your APs using measurement data collected from a Client Walkabout and AP radio scanning</p> <p>Location Manager—display a graphical view of the WLAN environments including AP locations, radio configurations and estimated location of unknown APs</p>	Radio Management, page 7-1

Table 1-2 *Tabs and Subtabs (continued)*

Main Tab	Subtabs	For information, see...
Administration	<p>Appliance—manage the WLSE system (view diagnostics, manage WLSE software, manage WLSE security, backup and restore data, configure the login screen, set current time, specify NTP servers and name servers, set up routing for email jobs, use connectivity tools (ping, traceroute, nslookup, TCP port scan, and SNMP reachability), and use the SNMP query tool.</p> <p>System—view information about supported device firmware versions, and import information about newly supported firmware versions.</p> <p>User Admin—manage users and user profiles.</p> <p>My Profile—reset your password and email address and configure your login environment.</p> <p>Links—set up and activate links to other systems (such as other WLSEs and CiscoWorks servers), run ACS failed login reports.</p>	<p>Managing the WLSE System, page 8-1.</p>

Buttons

The buttons in the upper right corner of the user interface have the following functions:

- Overview—Displays an overview of the tabs and their functions.
- Help—Displays online help for the subtab or option you are using and a table of contents and index for online help.
- About—Displays information about the WLSE version.
- Logout—Logs you out of the WLSE and displays the login screen.

Device Name and IP Address Display

Many WLSE displays include a field for the device name. The data displayed in this field differs depending upon the following:

- If reverse DNS lookup is enabled on the WLSE, the device name is displayed in this field if the lookup succeeds. If the lookup fails, the device IP address is displayed.
- If you do not enable reverse DNS lookup and the device's sysName is set, the sysName SNMP variable is displayed. If sysName is not set, the device IP address is displayed.

In some displays there are separate fields for device name, sysName, and IP address.

To enable DNS lookup on the WLSE, select **Devices > Discover > DISCOVER > Advanced Options** and select Use reverse DNS lookup.

Time Display

The WLSE uses browser (client) time in most of its displays. The format of timestamps depends on the browser you are using:

- In Internet Explorer, the timestamp usually consists of the browser time (hours:minutes:seconds) and date; for example:

14:17:16 10/12/2002

In some displays the timestamp is the day of the week, month and day, browser time, timezone, and year; for example:

Sat Oct 12 11:15:01 PDT 2002

- In Netscape Navigator, the timestamp usually consists of the browser time (hours:minutes:seconds) and date; for example:

14:17:16 10/12/2002

In some displays the timestamp is the day of the week, time, offset from GMT/UTC, timezone, and year; for example:

Mon Mar 25 13:29:21 GMT-0800 (Pacific Standard Time) 2002

The WLSE's system time is Universal Coordinated Time (**UTC**), and UTC is displayed in certain logs, such as the discovery run log.

It is recommended that you check the current local time on the WLSE the first time you log in. If you need to reset the time, use the CLI **clock** command to set the UTC date and time correctly. Thereafter, the Web interface will display the correct current local (browser) time.

For more information on the **clock** command and other CLI commands, see the command reference in the *User Guide for the CiscoWorks Wireless LAN Solution Engine*—in the online help, click **View PDF**.

For more information about setting the current local time in the Web interface, see [Set the Current Local and UTC Time, page 8-33](#).

Using the Device Selector and Search

The WLSE contains a device selector and Search that can be used to select a group or devices or an individual device:

- Device Selector—See [Using the Device Selector, page 1-9](#)
- Search—See [Using Search, page 1-10](#)

The search results, as well as the folders in the device selector, display icons indicating the alarm status of the devices. For an explanation of the icons, see [Understanding the Icons, page 1-10](#).

Using the Device Selector

To select a group of devices or individual device for which you want to run a report, use the device selector in the left pane.

Procedure

-
- | | |
|---------------|---|
| Step 1 | Click to expand the desired folder. |
| Step 2 | Click to select the group of devices or an individual device. |
-

Using Search

To search for a device, use the dialog box in the left pane above the device selector.

Procedure

Step 1 From the list, select the method you want to use to search for the device, then enter the search information.



Note Not all of the following search methods are available on all of the screens.

- Device Name—The name of the device.
- IP Address—The IP address of the device.
- APs Based on Client MAC—The MAC address of a known client. For both IOS and non-IOS access points.
- APs Based on Client Name—The name of a known client.
- APs Based on Client IP—The IP address of a known client.
- Use an asterisk (*) as a wildcard to denote numbers and letters.

Step 2 Click **Search**. The requested device appears in the Search Results folder.

Understanding the Icons

The search results, as well as the folders in the device selector, display icons indicating the alarm status of the devices:

- Red X—Indicates a P1 or P2 fault or the device is unreachable.
- Yellow exclamation—Indicates a P3, P4, or P5 fault and the device is reachable.
- Green check—Indicates the device has no faults and is reachable.

The icons on the folders reflect the status of the highest severity fault for any of the devices or folders within that folder.

Sorting Table Data

To sort table data, click on the column heading by which you want to sort the data:

- A triangle indicates ascending order.
- An upside-down triangle indicates descending order.
- No triangle indicates that the data is not sorted.

Logging In and Out

After initial setup, only the admin user can log into the WLSE, using the reserved username **admin** and the password specified during initial setup. When you create other logins, you assign one or more roles to each user. Roles define which tabs and subtabs are visible to the user and, therefore, which features users can access. There are predefined roles, which can be edited but not removed; and you can create new roles.

To set up access for other users, see [Managing User Accounts, page 8-42](#) and [Managing Roles, page 8-40](#). The WLSE supports up to 10 simultaneous users.



Note

The WLSE Web interface times out after 30 minutes of inactivity. You will be logged out after that time. You can use the **webtimeout** command to change the timeout period. For information about the WLSE's command line interface (CLI) see the *User Guide for the CiscoWorks Wireless LAN Solution Engine, Release 2.5*. To view this guide from the online help, click **View PDF**.

Procedure

To log into the Web interface:

- Step 1** Access the WLSE through a browser by entering the WLSE's IP address, followed by **:1741** (for example: <http://209.165.128:1741>).
- For information on supported browsers, see [Supported Browsers, page 1-3](#).
- Step 2** Enter your username and password and click **Login**.

If you do not see the features you need to use, log out and log back in as a user with those privileges. Contact the system administrator for information about the features you can access.

To log out, click **Logout** in the upper right corner of the window.

Customizing the Web Interface

You can customize the Web interface by:

- [Setting the Default Tab and Subtab, page 1-12](#)
- [Adding a Message to the Splash Screen, page 1-13](#)

Setting the Default Tab and Subtab

By default the overview screen appears when you log in. This screen provides a brief description of each of the main tabs. When you select a tab, the overview describes each of the subtabs.

Use the following procedure to customize the initial display.

Procedure

- Step 1** Select **Set Tab Defaults** in the upper right corner of the overview screen, or select **Administration > My Profile > Set Tab Defaults**.
- Step 2** Select a tab from the list.
- Step 3** Select a subtab or the Overview from the pulldown list.
- Step 4** Click **Save**.

Result: The next time you log in, your home page will be the tab and subtab or overview that you selected.

Adding a Message to the Splash Screen

Use the following procedure to add a message to the splash screen that appears just before the login prompt.

Procedure

- Step 1** Select **Administration > Appliance > Splash Screen**.
 - Step 2** Enter your message.
 - Step 3** Select **Enable**. The message will be displayed in the splash screen. Users must click **Agree** in the splash screen before the login prompt will appear.
-

Next Steps

The following list shows the order in which you can access WLSE features:

1. Before you can use WLSE management features, you must configure the WLSE and set up your network devices. These procedures are described in the *Installation and Configuration Guide for the CiscoWorks Wireless LAN Solution Engine, Release 2.5*.
2. Initiate discovery and move your network devices to the managed state (see [Managing Devices, page 3-1](#)).
3. Now you can use all of the WLSE features for managing your WLAN.
4. When deploying additional devices, use the device setup procedures in [Setting Up Devices, page 3-5](#).

